RAADYSAN BIOTECH, INC





Developing Innovative Therapies for Triple Negative Breast Cancer Raising: Seed Round of \$2.0 million

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Biotechnology Awards 2024

UNMET MEDICAL NEED



TRIPLE NEGATIVE BREAST CANCER (TNBC) Lacks Hormonal and Growth receptors

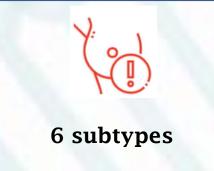














Latest therapies do not increase the survival rates of TNBC patients beyond 2-6 months

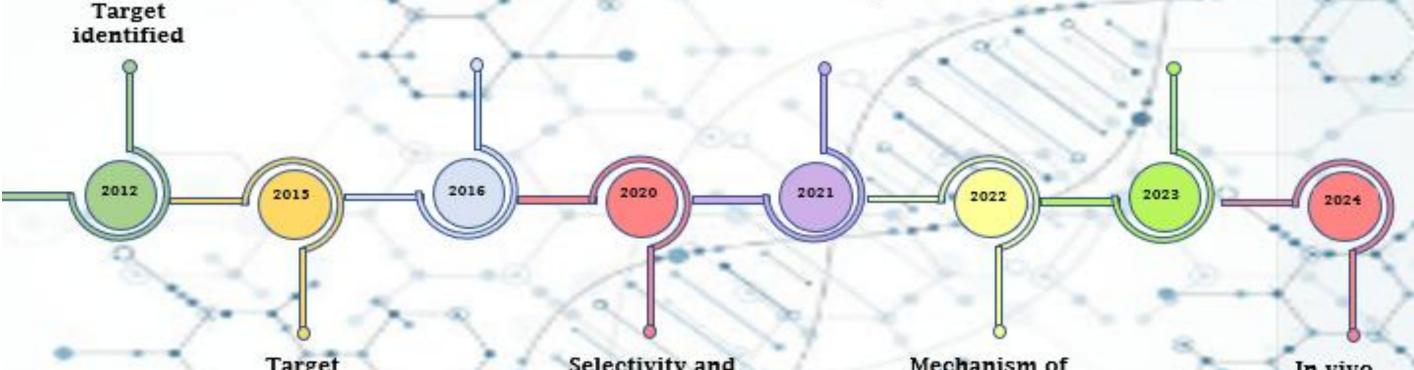
Need to develop innovative therapies for the treatment of TNBC

MILESTONES ACHIEVED & DE-RISKING



- CADD analysis to identify custom library of small molecule inhibitors (SMIs)
- 7 hits were short-listed after 3 levels of screening

Mechanism of selectivity identified for 2 lead compounds in multiple cellbased assays Developed a methodology to measure the biochemical activity of the target protein in the presence and absence of one lead compound



Target validated with RNAi

Selectivity and specificity demonstrated for 2 lead compounds in multiple cell-based and biochemical assays Mechanism of downregulation of target protein expression by 2 lead compounds identified in multiple cell-based assays

In vivo studies for one lead compound-Completed

SOLUTION





Identified novel target-RP*, which is directly involved in:

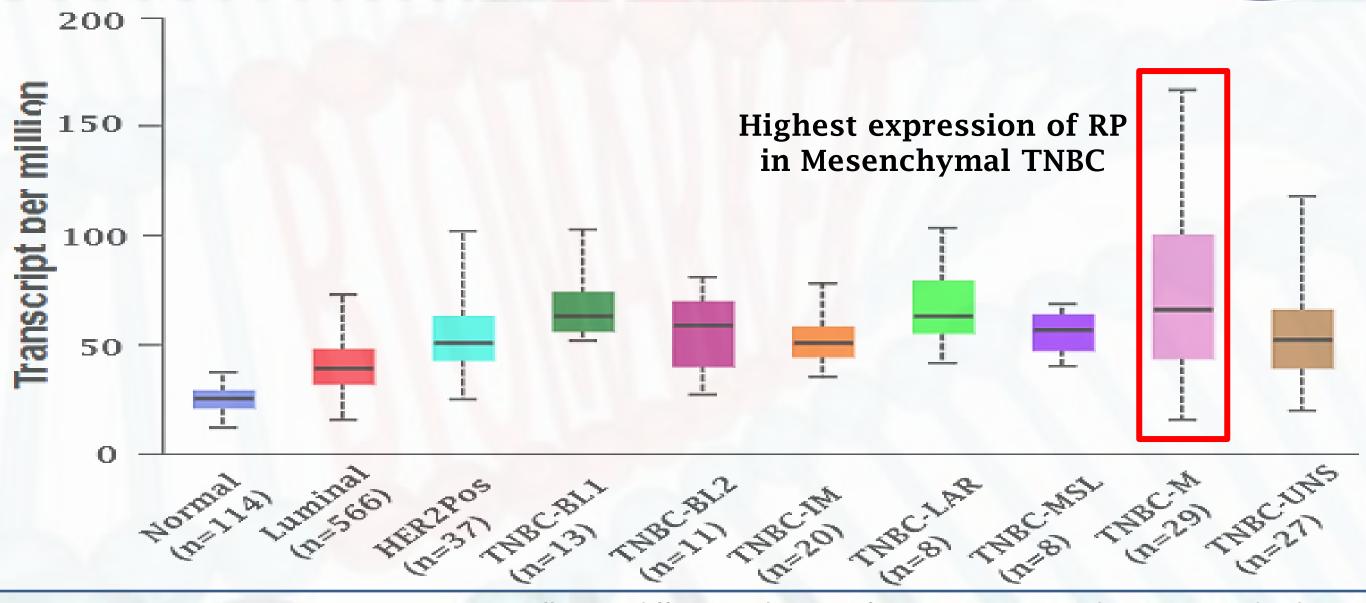
- DNA replication
- Mitosis
- Cytokinesis



- RP* protein is over-expressed by 9-fold in TNBC patients
- RP* gene copy number gain was observed in 55-62% of TNBC Patients:
- 40% of the patients had tumor size of 2-5 cm
- 90% of the patients had the cancer metastasized to the regional lymph node(s)

CLINICAL VALIDATION







RP gene expression in transcript per million in different subtypes of TNBCs, as reported in UACLAN databases. TNBC-BL1: TNBC Basal-like 1, TNBC-BL2: TNBC Basal-like 2, TNBC-IM: TNBC Immunomodulatory, TNBC-LAR: TNBC luminal androgen receptor, TNBC-MSL: TNBC mesenchymal stem-like, TNBC-M: TNBC Mesenchymal, TNBC-UNS: TNBC unspecified.



SOLUTION

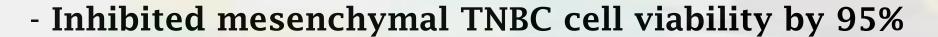


Identified first-in-class small molecule inhibitor against RP-RDY00120



In-vitro data





- Inhibited RP enzyme expression by 47% in 24 hours via Ub-Proteasomal pathway
- Inhibited enzyme activity in nanomolar concentrations



Did not affect non-cancerous breast cells - Mechanism
Of selectivity identified



Selectively inhibited mesenchymal TNBC cells via necroptosis



SOLUTION



Data for treatment of female mice (implanted with mesenchymal TNBC cell xenograft) with RDY00120 (monotherapy)



- Inhibited TNBC tumor growth rate by 61%
- Complete tumor regression in one animal



- Very few RP positive nuclei in treated vs untreated TNBC tumors indicating RDY00120 directly inhibited RP protein expression resulting in tumor growth inhibition
- Fewer Ki-67 positive nuclei in treated vs untreated TNBC tumors



- No loss in body weight - indicating no toxic effects of the drug treatment on animals

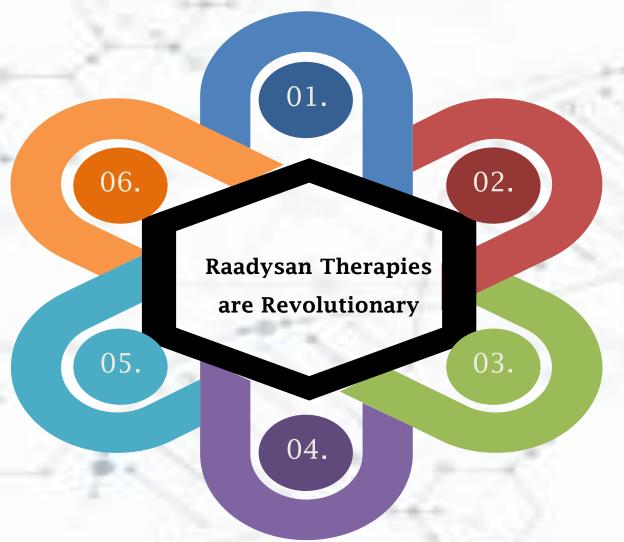
ADVANTAGES OVER OTHER THERAPIES



Identified a novel molecular target

No loss in body weight

Complete regression in one animal



RDY00120 selectively inhibited TNBC cell viability by 95%

MOA: Inhibits the expression of the molecular target by 47%

Inhibited Tumor Growth Rate by <u>61</u>% (monotherapy), in female mice

INTELLECTUAL PROPERTY (Radysan)





- Patent No. US 9,193,970
- Patent No. US 9,546,366



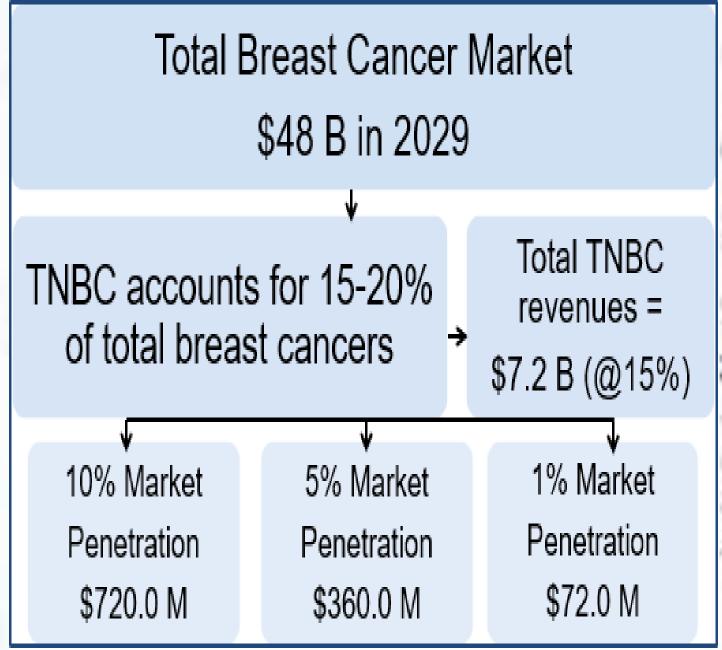
- PCT filed for compounds and methods
- National Stage Filing US & Europe



- Patent No. US 9,822,363
- Patent No. US 9,970,012

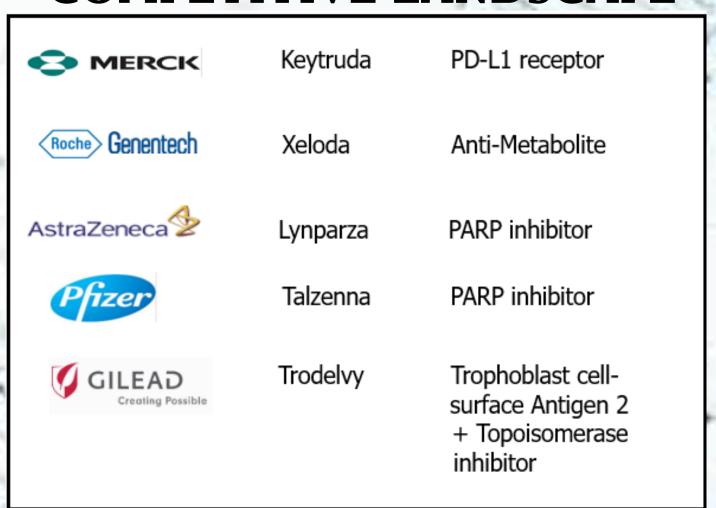
IP Ownership: Raadysan Biotech, Inc





Over 2.8 million new cases of breast cancer, was reported worldwide, in 2020

COMPETITIVE LANDSCAPE



DISADVANTAGES:

- Since none of these drugs directly target DNA Replication: - the cancer cells can find a roundabout and still grow
- 60-80% TNBC patients are resistant to PARP inhibitor therapies and develop relapse or recurrence

PRODUCT DEVELOPMENT STRATEGY Timeline and Capital Requirements



STAGES

Pre-Clinical

IND

Phase 1



In-vivo studies with PDX-TNBC

In-vivo Efficacy/ADME /TK Studies



Clinical Trial

CAPITAL ROUND Seed = \$2.0 million

Series A = \$15.0 million Series B = \$15.0 million

~TIMELINE

2026

2027-

2029

USE OF PROCEEDS FOR SEEDING ROUND





R & D expenses:

In vivo pilot studies in patientderived xenografts of TNBC mice model



G & A expenses - IP Protection, Wages/payroll expenses, lab rent, etc.

INDICATIONS



PRIMARY INDICATIONS:

- Breast cancers: TNBC, ER+, HER2+
- Other Gynecological cancers: Ovarian, Uterine, Cervical

SECONDARY INDICATIONS:

- Glioblastoma Multiforme
- Acute & Chronic Myeloid Leukemia
- Hepatocellular carcinoma
- Head & Neck Cancer
- Testicular Cancer

FINANCIALS

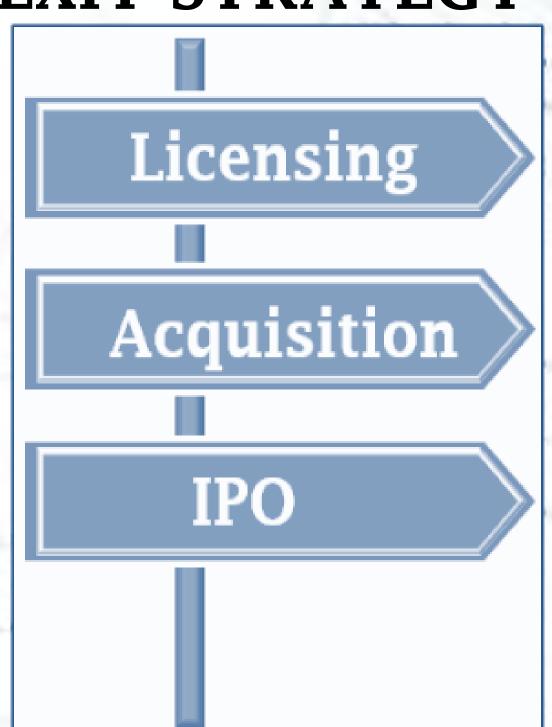
EXIT STRATEGY

Funding to date:

- \$845,000 (Founder Funded)
- Submitted SBIR grant-January 2025

(Anti-tumoral activity of RDY00120 in BRCA1-mutated TNBC)

❖ROI: Equity



MANAGEMENT TEAM



Rakhee Gupte, MS, PhD – CEO & President: 25 years of academic and pharmaceutical experience in Oncology.



Steven Taylor, BSc, PhD – Chief Scientific Officer: 22 years experience in drug discovery and regulatory development



Roderike Pohl, PhD – VP, Research: 20 years of experience in pharmaceutics, bio-pharmaceutics and preclinical research.



ADVISORS



Nick Landekic, MA, MBA — Corporate Dev. Advisor: 30 years of small biotech and big pharma experience in corporate development, marketing, and finance.



Paul Mieyal, PhD, CFA – Strategic Advisor: 20 years of experience in healthcare investments (Late-Stage). Managing Director at Outcome Capital.



Linda Vahdat, MD, MBA – Medical Advisor: Deputy Cancer Center Director, Section Chief of Medical Oncology and Interim Chief of Hematology at Norris Cotton Cancer Center. 20 years of experience treating Triple Negative Breast Cancer patients